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Mental Healthcare Utilization in Patients Seeking Bariatric Surgery: The Role of Attachment Behavior

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Obesity may be a factor contributing to mental health in patients seeking bariatric surgery. Whether a person uses mental healthcare may have its roots in attachment behavior. The present study ($N = 260$) identified that attachment anxiety was associated with more mental healthcare visits (OR = 1.86, 95% CI = 1.11–2.54, $p = 0.02$), present use of medication (OR = 2.30, 95% CI = 1.43–3.68, $p = 0.001$), and previously prescribed medication (OR = 2.01, 95% CI = 1.13–3.57, $p = 0.02$). Furthermore, the use of previously prescribed medication was especially prevalent in patients with high attachment anxiety and low attachment avoidance (OR = 2.96, 95% CI = 1.35–6.50, $p = 0.007$). The observation that attachment behavior is associated with mental healthcare utilization indicates that it should be recognized and considered by healthcare providers working with patients with morbid obesity for therapeutic and economic reasons.

Introduction

Obesity has been recognized as a growing public health problem, and it is associated with physical problems such as type II diabetes and hypertension, as well as mental problems such as depressed mood.[1,2] Mental problems are particularly high among patients with morbid obesity seeking bariatric surgery,[3–7] and mental healthcare utilization has also been found to be high.[8] Some patients with mental problems are given mental health counseling prior to bariatric surgery to improve their mental health status.[9] The use of pre- and postoperative mental health counseling and the probability that mental healthcare is given will obviously depend on the existence of mental problems, but may also have roots in attachment behavior. The present study focuses on the association between attachment behavior and mental healthcare utilization.

Attachment behavior—the habitual way of relating to other people—plays a role in the etiology of mental problems, and may influence the risk of individuals becoming obese and the probability of individuals using mental health services. According to attachment theory,[10–13] early interactions with attachment figures influence how people think, feel, and behave in adulthood.[14] Anxiously attached people seek support from others through amplifying distress, while avoidantly attached people evade dependency on others.[15] Confronted with a stressor, people with anxious attachment representations have been found to increase caloric intake and physiological responses relevant to eating (e.g., cortisol).[6,16,17] Moreover, insecure attachment has been found to be associated with obesity in both child- and adulthood[18,19] and with poor self-efficacy of eating management.[20] In addition, insecure attachment has been shown to be a factor of vulnerability for mental health problems in the general population[21] and in bariatric surgery candidates.[22]

Mental healthcare may be used by patients with morbid obesity as a one-off after a crisis,[23] throughout life in the case of chronic psychiatric comorbidity,[9] as a preoperative psychological intervention for bariatric surgery patients with significant psychological problems,[24] and as pretreatment for bariatric surgery.[9] Based on observations in the general population for healthcare utilization,[25–28] attachment anxiety in bariatric surgery patients is hypothesized to predict mental healthcare utilization of any kind. Individuals with anxious attachment representations are expected to use more mental healthcare because they have a negative view of the self, are hypervigilant to stressors, have little faith in their own ability to manage, and tend to rely on others.[29] In contrast,

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individuals with avoidant attachment representations have a positive view of the self and a negative view of others, have a fear of intimacy, and have been found to be self-reliant,[29] and are therefore expected to use less mental healthcare. Finally, although individuals with secure attachment representations believe that they are worthy of care and attention, are comfortable in seeking support, and are confident that healthcare providers are capable and willing to provide care,[29] we expect their use of mental healthcare to be low because they have a low risk of mental disorders.[27]

Thus, the aim of our study was to examine the association between attachment representations and mental healthcare use in patients with morbid obesity applying for bariatric surgery.

Materials and Methods

Study sample

Patients with morbid obesity between the ages of 18 and 60 years referred to the Department of Bariatric Surgery of the Slotervaart Hospital, Amsterdam, The Netherlands between February and August 2012 were included in this study. Patients are eligible for gastric bypass surgery if they have a body mass index (BMI) $>40\,kg/m^2$ or a BMI $>35\,kg/m^2$ and comorbidity such as hypertension, diabetes, obstructive sleep apnea syndrome (OSAS), or osteoarthritis. Furthermore, patients should have made serious attempts at losing weight.[30] A total of 299 patients from the Slotervaart bariatric surgery unit completed the questionnaires. Of these 299 patients, 260 patients with complete data sets on the variables needed for this study were included in analyses.

Procedures

Data were obtained from questionnaires filled out by patients during their presurgical multidisciplinary assessment. Questionnaires consisted of questions on demographics, adult attachment, and mental healthcare utilization. After random allocation, all questionnaires received an identification number, and information gathered was treated confidentially. The study was approved by the Medical Ethical Committee of the Slotervaart Hospital. Research participants provided informed consent.

Instruments

Adult attachment was measured with the Experiences in Close Relationship scale Revised (ECR-R), a continuous measurement of attachment.[21,31] The ECR-R comprises 36 items to assess how individuals experience intimate relationships emotionally by employing two broad dimensions: attachment anxiety (18 items) and attachment avoidance (18 items). Items were rated on a 5-point Likert scale, ranging from "strongly disagree" to "strongly agree." The present data showed good internal consistency for both subscales with Cronbach's alphas for attachment anxiety and attachment avoidance subscale being 0.88 and 0.90 respectively.

Mental healthcare utilization of patients was measured with the question "Have you ever been in contact with a social worker, psychologist or psychiatrist for professional help?" Previously prescribed medication was measured with "Have you ever used medication for mental problems in the past?" The question to measure current medication use was "Do you use medication for mental problems currently?" Questions could be answered with "yes" or "no." Medication use at presentation was retrieved from the electronic patient files.

Statistical analyses

Descriptive statistics were used to summarize demographics, attachment, and mental healthcare utilization. Means (M) and standard deviations (SD) were calculated for continuous variables. Frequencies and percentages were used to describe categorical data. Differences between patients with and without complete data sets regarding demographics were investigated using one-way analysis of variance (ANOVA) and Pearson chi square. Logistic regression analysis was used to predict mental healthcare visits, previously prescribed medication and present use of medication for mental problems from attachment anxiety, attachment avoidance, and the interaction between attachment anxiety and attachment avoidance. Also the possible prediction of age, gender, BMI, and education level of the patient (person characteristics) was examined. However, only those demographic variables that significantly correlated ($p<0.10$) with at least one of the three variables indicating mental healthcare use were included in the regression model.

In step 1 of the logistic regression, demographic variables (i.e., gender, age) were entered. In step 2, attachment anxiety and attachment avoidance were entered. In step 3, we examined the interaction term between attachment anxiety and attachment avoidance. Attachment anxiety and attachment avoidance were centered on their grand mean (i.e., the overall mean was subtracted from the values of a variable). To probe a significant interaction effect, logistic regression analyses were repeated including only patients with a score below and above the median on attachment anxiety and attachment avoidance respectively. Statistical analyses were performed using SPSS v19.0 software package (IBM Corp., Armonk, NY). The level of significance was set at $p<0.05$. All tests were two-tailed.

Results

Description of the sample

The mean age of the study population was 44 years ($SD=10.8$); 84% of participants was female, mean BMI was $44\,kg/m^2$ ($SD=6.2$), and 20% of patients had followed higher education (bachelor's degree or higher). Mean attachment anxiety was 2.01 ($SD=0.79$), and mean attachment avoidance was 2.13 ($SD=0.79$).

No statistically significant differences were found between the patients with missing data and those with complete data sets regarding age, gender, BMI, or education level (data not shown).

Personal characteristics, attachment style, and mental health utilization

In our sample of patients seeking bariatric surgery, 138 patients (53%) had been in contact with a mental healthcare provider, 60 patients (23%) had used prescribed medication for mental problems, and 29 patients (11%) currently used prescribed medication for mental problems. Most patients currently using medication ($n=23$) used antidepressants, and two used antipsychotics. Furthermore, six patients used antidepressants or antipsychotics combined with benzodiazepines.

Table 1. Regression Analyses Predicting Mental Healthcare Visits, Previously Prescribed Medication, and Present Use of Medication for Mental Problems From Person Characteristics (Step 1) Attachment Anxiety, Attachment Avoidance (Step 2), and the Interaction Term (Step 3)

	Mental healthcare visits		*Previously prescribed medication*		*Present use of medication*	
	OR	*95% CI*	*OR*	*95% CI*	*OR*	*95% CI*
Step 1						
Age	1.01	(0.99–1.04)	1.03*	(0.99–1.06)	1.03	(0.99–1.07)
Gender (0 = female, 1 = male)	0.53*	(0.27–1.04)	0.38*	(0.14–1.03)	0.15*	(0.02–1.17)
Step 2						
Age	1.01	(0.99–1.04)	1.03*	(0.99–1.02)	1.03	(0.99–1.07)
Gender (0 = female, 1 = male)	0.49**	(0.25–0.99)	0.37*	(0.14–1.02)	0.16*	(0.02–1.20)
Attachment anxiety	1.68**	(1.11–2.54)	2.30***	(1.43–3.68)	2.01**	(1.13–3.57)
Attachment avoidance	1.09	(0.73–1.64)	0.79	(0.48–1.31)	0.71	(0.37–1.37)
Step 3						
Age	1.01	(0.99–1.04)	1.03*	(0.99–1.06)	1.03	(0.99–1.07)
Gender (0 = female, 1 = male)	0.49**	(0.25–0.98)	0.36*	(0.13–1.00)	0.16*	(0.02–1.19)
Attachment anxiety	1.77***	(1.16–2.73)	2.66***	(1.64–4.29)	2.22***	(1.24–3.96)
Attachment avoidance	1.09	(0.73–1.63)	0.90	(0.55–1.47)	0.8	(0.41–1.56)
Attachment anxiety* Attachment avoidance	0.80	(0.52–1.21)	0.56**	(0.33–0.94)	0.63	(0.32–1.25)

OR, odds ratio; CI, confidence interval; BMI, body mass index.
*$p < 0.10$; **$p < 0.05$; ***$p < 0.01$.

Table 1 shows the results of logistic regression analysis. In step 1, neither age nor gender was found to be significantly associated with the outcome variables. Almost significant ($p < 0.10$) observations were that previously prescribed medication use was higher in older patients than younger patients ($p = 0.07$) and that mental healthcare visits ($p = 0.06$), previously prescribed medication use ($p = .06$), and present use of medication ($p = 0.07$) were higher for women than men. Step 2 showed that attachment anxiety was associated with more mental healthcare visits (OR = 1.86, 95% CI = 1.11–2.54, $p = 0.02$), previously prescribed medication (OR = 2.30, 95% CI = 1.43–3.68, $p = 0.001$), and present use of medication (OR = 2.01, 95% CI = 1.13–3.57, $p = 0.02$). No significant associations were found between attachment avoidance and mental healthcare utilization. In step 3, the interaction of attachment anxiety and attachment avoidance predicted a significant proportion of individual differences in previously prescribed medication (OR = 0.56, 95% CI = 0.33–0.94, $p = 0.03$). In the prediction of previously prescribed medication, the odds ratios for attachment avoidance in patients below the median on attachment anxiety (OR = 1.32, 95% CI = 0.59–2.96, $p = 0.51$) or above (OR = 0.73, 95% CI = 0.42–1.25, $p = 0.25$) the median on attachment anxiety were not significant, and neither was the odds ratio for attachment anxiety in patients scoring high on attachment avoidance (OR = 1.47, 95% CI = 0.89–2.42, $p = 0.13$). However, previously prescribed medication was significantly predicted by attachment anxiety in patients with attachment avoidance below the median (OR = 2.96, 95% CI = 1.35–6.50, $p = 0.007$), indicating that previously prescribed medication was especially prominent in patients scoring high on attachment anxiety and low on attachment avoidance.

Discussion

Our study shows that more than half of the 260 patients (53%) referred for bariatric surgery had previously been in contact with a mental healthcare provider. In addition, one out of every four to five patients (23%) had previously used prescribed medication for mental problems, and one out of nine patients (11%) was currently using such medication.

The results of this study demonstrate that the use of mental healthcare is most common in more anxiously attached patients, and that the use of previously prescribed medication is especially prevalent in patients scoring high on attachment anxiety and low on attachment avoidance. These findings are in agreement with attachment theory and may reflect that patients with more anxious attachment representations seek mental care more often because they rely for support and care more on others in combination with being more vulnerable for developing mental problems and experiencing higher levels of negative affect.[29] On the other hand, attachment avoidance was not found to be associated with mental healthcare, which may reflect a preference for being self-reliant and a reluctance to become dependent. Although patients with avoidant attachment representations may show considerable biological distress (e.g., increased blood pressure), they appear calm and subjectively feel and report not being distressed.[21]

Furthermore, previous research showed that more secure attachment representations are associated with resilience and good psychological health.[32] Although patients with morbid obesity who are more securely attached may not be free of mental problems, they might possess more effective psychosocial skills (e.g., social and communicative competences) and coping strategies (e.g., social support, active problem solving).[32] These skills and strategies may prevent them from needing mental healthcare. In our study, more secure attachment representations might be reflected in the combination of low scores on attachment anxiety and low scores on attachment avoidance. This interaction was not associated with low or high mental healthcare use, perhaps because psychiatric disorders were low in this group and, in the case of psychiatric disorders, these patients are comfortable in seeking support and are confident

that healthcare providers are capable and willing to provide support.[29] The most use of mental healthcare was made by patients scoring high on attachment anxiety and low on attachment avoidance. These patients may have relatively many mental problems or even psychopathology and are dependent without being reluctant to accept help form others.

Although the association between more healthcare utilization and attachment anxiety has been described in previous studies,[26,27] the present study adds to this literature by focusing specifically on mental healthcare utilization in a population seeking bariatric surgery. Some aspects of this study require comment. The main limitation of this study is its retrospective, cross-sectional design preventing conclusions about the direction or prospective relation between variables. Furthermore, our findings do not generalize beyond the population of patients with morbid obesity applying for bariatric surgery or to other variables not rooted in attachment that may affect obesity and the use of healthcare. We cannot exclude that a proportion of the patients may have had a visit with a psychologist or psychiatrist as part of an earlier weight loss program instead of treatment for mental problems. A final limitation is that we used self-reports of healthcare utilization. Future prospective studies should include questions about the number and reasons of visits at the different mental healthcare providers and should verify these visits with mental healthcare providers. While our current study indicates which patients use mental healthcare, future studies should examine who needs and benefits most from mental healthcare both before and after surgery.

Conclusions

Overall, the results suggest that attachment behavior plays a role in the use of mental healthcare by patients with morbid obesity who apply for bariatric surgery. Therefore, it is important for healthcare providers working with patients with morbid obesity to have knowledge of attachment theory, to recognize anxious and avoidant attachment representations, and to be aware of the desire of these patients for close relationships and hypervigilance for rejection as well as of the mental vulnerability of this group. Knowledge of individual attachment representations may help to prevent unnecessary delay, and it may increase throughput of patients needing and not needing psychological treatment before they are admitted to bariatric surgery. In terms of implications, first, more anxiously attached patients may actually need more mental healthcare than securely attached patients, and, second, their emotionally dependency on caregivers and fear of rejection and abandonment may lead to unnecessary mental healthcare visits and high costs. To deal with both problems, regularly scheduled frequent brief visits or telephone calls with healthcare providers may be required for these patients.[29,33] If a healthcare provider—responsive to concerns[34]—is available at these scheduled moments before the patient asks for it and independent of symptoms, anxiously attached patients may become less compulsive in care seeking outside these moments. Patients may experience that support occurs regardless of whether or not they communicate they have symptoms.[29] Furthermore, it is important for the patients that they experience enough support and empathy from the healthcare provider, as well as from more accessible resources such as family, friends, or their religion.[35] Conclusively, the observation that attachment anxiety is associated with mental healthcare utilization in morbidly obese patients seeking bariatric surgery indicates that it should be recognized and considered by healthcare providers for therapeutic and economic reasons.

Disclosure Statement

No competing financial interests exist.

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Clinical Commentary on Mental Healthcare Utilization in Patients Seeking Bariatric Surgery: The Role of Attachment Behavior

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Proper mental health assessment and follow-up monitoring are vital in the management of the bariatric population. This manuscript emphasizes to healthcare providers the role of significant relationships in our patients' lives. Although attachment theory is generally rooted in child–parent or adult romantic relationships,[1] attachment behaviors can also surface in the relationships that patients have with their caregivers. It is helpful to identify attachment issues, as these can potentially affect one's psychopathology and impact the coping capacity and compliance of patients.

Past research has shown a relationship between insecure attachment and obesity.[2] The morbidly obese likely have diminished confidence and low self-esteem,

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